UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
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Lenexa, Kansas 66219

MAY 27 2014

Dr. David Gade
U.S. Army Corp of Engineers
Environmental Technical Services Branch
Regional Planning & Environmental Center
1645 S. 101st E. Avenue
Tulsa, OK 74128-4629

Dear Dr. Gade:

RE: Review of Draft Programmatic Environmental Impact Statement for the Removal and Disposal of Sediment and Restoration of Water Storage at John Redmond Dam and Reservoir, Coffey County, KS (CEQ number 20140107)

The U.S. Environmental Protection Agency has reviewed the Draft Programmatic Environmental Impact Statement for the Removal and Disposal of Sediment and Restoration of Water Storage at John Redmond Dam and Reservoir, Coffee County, KS. Our review is provided pursuant to the National Environmental Policy Act (NEPA) 42 U.S.C. 4231, Council on Environmental Quality regulations on 40 C.F.R. Parts 1500-1508 and Section 309 of the Clean Air Act.

The stated purpose and need of the proposed action is to restore water supply storage for the benefit of the regional water users and restore the lost aquatic habitat for the benefit of public recreation and the lake ecosystem that has been lost due to sedimentation. While the Kansas Water Office is the project proponent, and will incur all costs associated with the proposed project, the federal action for NEPA purposes includes the authorization by the U.S. Army Corps of Engineers of the project on fee lands through the issuance of 33 U.S.C. Section 408 and Clean Water Act Section 404 permits; issuance of the DPEIS and executing the Record of Decision; and exercising a real estate instrument to allow for access to and use of fee lands.

The preferred alternative identified as a method to meet the basic project goal of increasing the water storage capacity in the conservation pool of JRR is Alternative #2: Dredge and Dispose of Sediments to Ensure 55,000 Acre-Feet of Conservation Storage with removal of approximately three (3) million cubic yards in the first five years of dredging activity.

EPA has rated this document as EC-2 (Environmental Concerns-Insufficient Information). This rating is based on the absence of thorough, comprehensive information regarding cumulative impacts, as well a lack of pertinent and relevant information surrounding potential water quality impacts. A copy of EPA's rating definitions are provided as an enclosure.

Of particular note, this DPEIS has a more limited scope than may be necessary for its intended application for future projects with respect to NEPA compliance. Additional NEPA documentation which may tier off of this DPEIS, may require a more robust assessment of project specific impacts. EPA offers the following observations and recommendations for the Corp's consideration in the Final PEIS.

Affected Environment

The DPEIS states that initial projections of the sedimentation rate for JRR supporting estimates for reservoir storage longevity were 404 acre-feet per year while the actual sedimentation rate is estimated to be 739 acre-feet per year. No explanation for this significant discrepancy is offered and, more importantly, no sources or causes of this increased sedimentation within the watershed are identified in the DPEIS. The DPEIS should more completely characterize the sources and causes of increased sedimentation in JRR. This characterization would then support the inclusion of land management practices in the watershed, which could reduce the amount of sediment delivered to JRR, as a component of any or all alternatives addressing reduced water storage. The absence of sediment transport reduction as a component of the restoration of water storage within this DPEIS is a deficiency, especially if viable CDF sites become more difficult to identify in out years.

Water Quality

The DPEIS should characterize water quality conditions in both JRR and the Neosho River downstream from JRR in the context of Kansas water quality standards and, specifically, criteria adopted by the State for measured or suspected contaminants (e.g., atrazine) and measured water quality parameters (e.g., phosphorous, suspended sediment, bacteria). The DPEIS should also compare water quality data to both the State's Clean Water Act, Section 303(d) list of impaired waters and any total maximum daily loads developed and adopted for JRR and the Neosho River upstream and downstream of JRR. This assessment of existing water quality and potential impacts to the water quality of JRR and the Neosho River from both dredging and discharges from CDFs in the context of the State's water quality standards is absent from the DPEIS. That comparison would support the determination whether the alternatives might cause exceedences of State water quality standards or worsen existing water quality impairments in either JRR or downstream in the Neosho River. The existing assessment is largely qualitative and not well supported.

Section 4.3 specifies only that discharges to the Neosho River from the initial two CDFs will not violate antidegradation requirements and will comply with the State's CWA Section 401 certification and National Pollutant Discharge Elimination System permit. The PDEIS does not attempt to characterize either the content of these CDF dewatering effluents or potential impacts resulting from these discharges. Further, the PDEIS states that if NPDES permit limits are exceeded, "the effluent will be piped back to John Redmond Reservoir." The PDEIS does not state whether an NPDES permit will be required for these discharges nor does it characterize any potential impacts to JRR water quality resulting from the discharge of polluted CDF effluent back to JRR. JRR is currently listed as impaired by siltation and nutrients which would be concentrated in these CDF discharges already expected to exceed NPDES permit limits governing discharges to the Neosho River. This approach raises concerns about important restrictions to planned management of dredged materials in both the short-term and over the planned 30 year span of potential dredging operations.

Dredging Specifics

Section 2.2 Proposed (Preferred) Action states that no parent material (non-deposited sediment) will be removed under this alternative, but does not offer an indication of how this will be ensured. Please consider including this information in the Final.

Section 4.3 Hydrology and Water Resources states that resuspension rates and sediment concentrations increasing over ambient conditions during dredging operations were found to be minimized by hydraulic dredges (rather than mechanical dredging) but does not provide specifics or quantitative information on how much these rates and concentrations are minimized by the use of hydraulic dredges versus mechanical dredging methods. Inclusion of supplementary information on these comparisons would be beneficial.

Cumulative Impacts

Section 2.2.1, Determination of CDF Sites, states that "If the dredging action were to continue beyond the initial five years and remove a quantity greater than three million cubic yards, approximately 2,000 additional acres, for a total of about 2,500 acres, may be needed for CDF sites over the next 30 years to maintain the 55,000 acre feet of storage in John Redmond Reservoir." While the DPEIS states that the initial five-year quantity of sediment to be removed from selected locations within the reservoir and stored in near-by CDFs amounts to three million cubic yards, the document only addresses the first year's estimated quantity of 700,000 cubic yards or 23% of the five-year total. Further, of the estimated five CDFs required to store the five-year dredged material total, this document only addresses the impacts of two CDFs of less than 100 acres each. Compounding the complexity of the analysis of impacts associated with movement of dredged material to and storage in CDFs is the lack of adequate public property to locate those CDFs. Locating adequate storage for dredged material on private property might necessitate movement of material over much longer distances than this document describes. In addition, reservoir storage capacity will be continue to be evaluated after the initial five-year time-frame and then throughout a time period linked directly to the life of the renewed Nuclear Regulatory Commission license for the Wolf Creek Generation Station (i.e., 2045). The Corps estimates that an additional 2,000 acres of storage space might be required to maintain the target reservoir storage capacity.

This DPEIS lacks a thorough consideration of what impacts the continuation of dredging activities may have on environmental resources beyond the first five years. The PDEIS states that the cumulative impacts due to dredging and sediment disposal will be negligible, but given that an additional 2,000 acres will potentially be affected in the foreseeable future, additional information is necessary to support this assertion. Wetlands, other waters of the U.S., prime or unique farm land and floodplains are all in close proximity to JRR, with most of the land privately owned. While it is understood that future sites will be evaluated for specific eligibility criteria, the Final PEIS should comprehensively characterize how additional CDF sites may affect the environment. For example, the document states that the use of lands for CDF sites is temporary and that the land will revert back to its original or other comparable use following the dewatering of dredged sediment. However, it is important to know how many approximate acres may be in active use any given time, given the projected rate of dredging activity. Additionally, as previously suggested, the cumulative impacts arising from pipelines carrying dredged material to CDFs located far from JRR could be significant.

Furthermore, while the 2013 Final Supplement to the Final Environmental Impact Statement for Storage Reallocation is cited and referenced throughout this document, a full review of the cumulative impacts of both the reallocation and this proposed action is lacking. Section 4.12, Cumulative Impacts, simply states that "The Preferred Alternative and Alternative #2 evaluated in this DPEIS combined with the reallocation would result in positive, long-term cumulative impacts." More comprehensive information on the combined effects of the synonymous projects is essential in order to substantiate that assertion.

Resources of concern may be identified by considering actions that alter ecological processes and therefore can be expected to produce cumulative effects. Changing hydrologic patterns, for example, is likely to elicit cumulative effects. Bedford and Preston (1988)[1] offered the following alterations that would likely initiate cumulative effects in wetlands or watersheds: 1) changes in sediment transport; 2) alteration of discharge and retention rates of water; 3) changes in velocity of water moving through the system; 4) disposal of organic pollutants where uptake is controlled by biological processes; 5) disposal of chemicals that easily separate from sediment and other materials to which they are attached.

If adequate data and analytical procedures are available, specific thresholds that indicate degradation of the resources of concern should be included in the NEPA analysis. The thresholds should be practical, scientifically defensible, and fit the scale of the analysis.

Mitigation

Section 5.0 Mitigation addresses the various actions that allow project-related impacts to a range of environmental resource areas, but fails to adequately identify what entity/entities will be responsible for ensuring that mitigation measures are applied and completed for each resource, and at what intervals monitoring activities will take place.

This section also states that mitigations to be considered for the dredging alternative in regards to Prime or Unique Farmlands is to dispose sediments on land that does not fit the criteria for prime or unique farmland, but does not identify a course of action or additional mitigation if such land cannot be avoided.

Other

CEQ issued draft guidance for public comment on when and how federal agencies must consider GHG emissions and climate change in their proposed action. While this guidance is not yet final, EPA recommends that the FPEIS reference the draft guidance, describe the elements of the draft guidance, and to the relevant extent, provide the assessments suggested by the guidance. We furthermore recommend a discussion of best management practices to reduce GHGs and other air emissions during operation of equipment, and vehicles.

The draft guidance proposes that climate change effects should be considered in the analysis of projects that are designed for long-term utility and located in areas that are considered vulnerable to specific effects of climate change within the project's timeframe. The focus of this analysis should be on those aspects of the environment that, based on the interaction between the proposed action and the

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[1] Bedford, B.L. and E.M. Preston. 1988. Evaluating Cumulative Effects on Wetland Functions: a Conceptual Overview and Generic Framework. Environmental Management. Vol. 12, No. 5, pp. 565-583.

environment, are affected by the proposed action and on the significance of climate change on those aspects of the environment. Agencies should consider the specific effects of the proposed action (including the proposed action's effect on the vulnerability of affected ecosystems), the nexus of those effects with projected climate change effects on the same aspects of our environment, and the implications for the environment to adapt to the projected effects of climate change.

As the primary purpose and need for the proposed action is to restore water supply storage for the benefit of regional water users, EPA recommends that the project team thoroughly consider the need for measures to manage potential climate-related impacts, such as potential increases in storm frequency and intensity resulting in increased floodwater flows, and conversely, the potential for increased drought events.

While it is likely that your office is already aware of it, but because it does not appear that it is specifically mentioned in the document, we would like to point out that owners or operators of any project or combination of projects who engage in construction activities which will disturb one or more acres must have authorization to discharge stormwater under the Stormwater Runoff from Construction Activities General Permit S-MCST-0312-1. Construction activities consist of any activity (e.g. clearing, grubbing, excavating, and grading) which disturb a cumulative total of one or more acres or when the site is a part of a larger common plan of development or sale which will disturb a cumulative total of one or more acres. Kansas Department of Health & Environment authorizes these stormwater construction permits.

We would like to request clarification on a discrepancy in section 4.9.3 Recreation. The effects on recreation from the Preferred Alternative are said to be short-term, localized, minor, and adverse. The effect on recreation from Alternative #2 is said to be the same as the Preferred Alternative, but conversely states that "Alternative #2 would result in medium-term, minor, adverse effects on recreation."

Also, as outlined in 40 CFR 1502.8, we appreciate the use and inclusion of plain language and inclusion of definitions throughout the documents so that decision makers and the public can readily understand the document. We appreciate and commend this level of clarity.

EPA thanks you for the opportunity to review and provide comments for this document. If you have any questions or concerns, please feel free to contact Amber Tucker at 913-551-7565 or via email at tucker.amber@epa.gov.

Sincerely,

Jeffery Robichaud
Deputy Director
Environmental Services Division

Draft Environmental Impact Statement Rating Definitions

Environmental Impact of the Action

LO (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1 (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3 (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.